DX
3342

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

FEDERAL HOUSING FINANCE AGENCY, AS CONSERVATOR FOR THE FEDERAL NATIONAL MORTGAGE ASSOCIATION AND THE FEDERAL HOME LOAN MORTGAGE CORPORATION, Plaintiff, -against- NOMURA HOLDING AMERICA INC., et al., Defendants.	No. 11-cv-6201 (DLC) ECF Case

Revised Direct Testimony of
Timothy J. Riddiough, Ph.D.

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REVISED AFFIDAVIT OF TIMOTHY J. RIDDIOUGH, PH.D.

STATE OF WISCONSIN)
) ss:
COUNTY OF DANE)

Timothy J. Riddiough, Ph.D., being duly sworn deposes and says:

1. My name is Timothy J. Riddiough. I provide this revised affidavit as my direct testimony at trial. I testify regarding two distinct subject matters. First, my testimony evaluates plaintiff's recovery under Section 12 of the Securities Act of 1933, 15 U.S.C. § 77*l et seq*. ("Section 12"), the Virginia Securities Act, § 13.1-522(A)(ii) (the "Virginia blue sky law"), and the District of Columbia Securities Act § 31.5605.05(a)(1)(B), (the "D.C. blue sky law" and collectively with the Virginia blue sky law, the "blue sky laws") assuming they successfully prove their claims. Second, my testimony evaluates the conclusions reached by plaintiff's expert, Dr. G. William Schwert, as set forth in his expert report dated July 9, 2014 (the "Schwert Report"), and which I anticipate will be the subject of Dr. Schwert's direct testimony.[1]

I. Background and Qualifications[2]

2. In 1981, I received an undergraduate degree in Quantitative Analysis from the University of Wisconsin-Madison. In 1984, I received an M.S. in Finance, and in 1991, a Ph.D. in Real Estate, also from the University of Wisconsin-Madison.

[1] To the extent Dr. Schwert's opinions and/or analyses differ from those set forth in the Schwert Report, I reserve the right to revise or supplement my testimony.

[2] My testimony about my background and qualifications contains only a selection of my research published in academic journals and other publications, awards and honors, advisory board positions, course offerings, areas of interest, media quotes, interviews, presentations, speeches, and counseling or consulting engagements. This testimony is supplemented by my curriculum vitae, which is attached hereto as DX-2899.

3. After serving as an assistant professor in the Department of Finance at the University of Cincinnati from 1991 to 1994, I served as an assistant, and later, as a tenured associate professor, at the Massachusetts Institute of Technology from 1994 to 2001.

4. In 2001, I became a tenured associate professor in the Department of Real Estate, School of Business, University of Wisconsin-Madison. In 2002, I was promoted to a full professor position. I currently run the Graaskamp Center for Real Estate at the University of Wisconsin-Madison, which I also ran from 2004 to 2009, and serve as the director of the applied real estate investment program at the Wisconsin School of Business. Additionally, I have held the E.J. Plesko Chair since 2001.

5. I have taught courses in microeconomics, real estate valuation, real estate finance and investment, mortgages and mortgage-backed securities, and real estate capital markets at one or another of undergraduate, master's, and doctoral levels. Some of the courses I have taught include, "Topics in Real Estate Finance" (Ph.D. level, University of Wisconsin), "Advanced Real Estate Finance (Risk Management, Structured Finance)" (masters level, University of Wisconsin-Madison), "Real Estate Equity Investment (REITs)" (masters level, University of Wisconsin-Madison), "Real Estate Finance and Investment" (masters level at MIT; undergraduate and graduate levels, University of Cincinnati and University of Wisconsin-Madison), and Statistical Regression Analysis (undergraduate level, University of Wisconsin-Madison).

6. My areas of research include credit risk in mortgage lending, mortgage securitization, real estate options, REIT investment, and corporate finance. My prize winning dissertation addressed the pricing of credit risk in mortgage lending. I have published scholarly articles in various journals including, but not limited to, Real Estate Economics, Journal of Urban Economics, the Journal of Real Estate Finance and Economics, the Review of Financial Studies, the Journal of Quantitative Financial Analysis, and the Journal of Financial Intermediation. I have also given numerous addresses and lectures on the causes and consequences of the 2008 financial crisis.

7. My research has been published in over 30 academic journals and I have over 20 other (typically peer reviewed) publications in outlets such as the “Real Estate Research Institute Working Paper Series” and “Transact 2000,” which was sponsored by the National Association of Realtors and by the Department of Housing and Urban Development, Office of Policy Development and Research. This research has covered a wide range of real estate-related topics, but my areas of particular interest include credit risk, debt, and financial intermediation, as those topics relate to mortgage finance and securitization, housing regulations and mortgage finance policy, and valuing complex financial instruments, such as residential mortgage-backed securities (“RMBS”).

8. I have served as a consultant for various organizations on numerous issues of real estate finance and investment, including sub-prime mortgage lending, securitization, capital structure, bankruptcy, and firm valuation. For example, in 2009, I advised the Department of Justice, Tax Division, on the valuation of sub-prime mortgages. Additionally, from 2010 to date, I have been retained as an expert in a number of mortgage-backed securities disputes involving prime and sub-prime loan pools, advising on subjects including economic damage assessment, loan and security disclosure issues, servicing obligations associated with pooling and servicing agreements and Home Affordable Modification Programs (“HAMP”) loan foreclosure and renegotiation procedures, overviews of how securitization works, with a focus on RMBS, the macro and microeconomic causes of foreclosure loss, and business model and risk management assessments. Additionally, in 2011, I was a visiting scholar at the central bank of Hong-Kong, and from 2011 to 2013, I served as senior technical advisor on issues of real estate and financial market stability at the Hong Kong office of the Bank for International Settlements.

9. I have held over fifteen advisory or board positions including positions on the Advisory Board of the Real Estate Research Institute, the National Association of Real Estate Investment Trusts (“NAREIT”), EquiBase Capital Partners, which is an entrepreneurial real estate

investment firm focused on investing private equity and debt capital, and the American Real Estate and Urban Economics Association.

10. I have also held several editorial board positions, including positions on the publications Real Estate and Economics, the Journal of Real Estate Finance and Economics, the Journal of Real Estate Research, and International Real Estate Review.

11. I have been a speaker at numerous conferences, either individually or as a participant in panel discussions. Some recent examples include the Sub-Prime Mortgage Meltdown and Financial Market Crisis, the Federal Reserve/FDIC Conference on the Future of Mortgage Finance at the University of Southern California Real Estate Roundtable, and the Federal Reserve Board Annual Financial Institutions Risk Management Conference.

12. Additionally, I have presented research papers on the subject of mortgage securitizations. For example, in 2013, in my presidential address, I presented findings with the title "19th Century Sub-Prime Mortgage Securitization, Appraisal Error, and the First Foreclosure Crisis" as well as one entitled "Governance and Design of Structured Securities: Theory and Evidence" at the American Real Estate and Urban Economics Association ("AREUEA") Meeting in San Diego. Also in 2013, I presented a paper entitled, "Can Securitization Work: Evidence from U.S. REITs," at the NAREIT Annual Conference in Chicago.

13. Among other honors and awards, I am a past recipient of the AREUEA best dissertation and best paper awards. In 2012, I was president of that organization, and I currently serve on the editorial board of Real Estate Economics as well as five other real estate related journals. I was named a founding fellow at the Real Estate Research Institute and am a fellow at the Homer Hoyt Institute for Advanced Studies.

II. Cases in Which I Have Testified at Trial or by Deposition as an Expert in the Last Four Years

14. In February 2015, I testified at deposition in *Bank of America, N.A. v. Republic Mortgage Insurance Company and Republic Mortgage Insurance Company of North Carolina*, Case No. 13 195 Y 00138 13, before the American Arbitration Association, New York City, New York, about developments in the residential mortgage and mortgage insurance industries.

15. In October 2014, I testified at deposition in *Beverly Adkins, et al. v. Morgan Stanley et al.*, Case No.: 1:12-CV-7667-HB, an action in the U.S. District Court for the Southern District of New York, about plaintiffs' expert's assertions in a class action of influence by the defendant as applied to a bankrupt lender's business model and mortgage origination practices.

16. In August 2014, I testified at deposition in a highly confidential arbitration.

17. In February 2014, I testified at deposition in *Aurora Credit Union et al. v. Wipfli, LLP*, Case No.: 12-CV-4965, an action in the State of Wisconsin, Circuit Court, Branch 8, Dane County. The dispute related to the bankruptcy of a credit union service organization.

18. In February 2013, I testified at deposition in *In Re: JPMorgan Chase Mortgage Modification Litigation*, an action in the U.S. District Court for the District of Massachusetts, Case No.: 1:11-MD-02290-RGS, about class action issues as related to HAMP and HAMP-related actions.

19. In February 2013, I also testified at deposition in *Dexia SA/NV, Dexia Holdings, Inc., FSA Asset Management LLC, Dexia Credit Local SA v. Bear, Stearns & Co. Inc. et al., The Bear Stearns Companies, Inc., et al.*, Case No.: 1:12-CV-4761, an action in the U.S. District Court for the Southern District of New York, about MBS disclosure and disclosure practices as well as plaintiff's business model.

20. In July 2012, I testified at deposition in *Georgia-Pacific et al. v. NCR Corporation et al.*, Case No.: 1:11-CV-00483-RJJ, an action in the U.S. District Court for the Western District of Michigan, Southern Division. In February 2013, I testified at trial in that action. My testimony was

primarily an assessment of the economics of a lease transaction on an industrial property as part of a superfund cleanup action.

21. In June 2012, I testified at deposition in *In Re: Washington Mutual Mortgage Backed Securities Litigation,* Case No.: C09-037-MJP (and consolidated with Case Nos.: CV09-0134 MJP, CV09-0137 MJP, and CV09-01557 MJP), an action in the U.S. District Court for the Western District of Washington, about the structure, risk factors and macroeconomic conditions related to mortgage-backed securities.

22. In January and February 2012, I testified at deposition in *In Center Partners, et al. v. Urban Shopping Centers, et al*., Case No.: 04-L-012194, filed in the Illinois Circuit Court of Cook County, about commercial real estate economics and the financing of commercial real estate assets.

23. In April 2011, I testified at deposition in *In Re: Countrywide Financial Marketing and Sales Practices Litigation,* Case No.: 3:08-MD-01988, filed in the U.S. District Court for the Southern District of California, about the mortgage industry. This testimony was at the class certification stage.

24. In February 2011, I testified in *In re Donna Moore and Frenchola Holden, individually and on behalf of all others similarly situated v. GMAC Mortgage, LLC, GMAC Bank and CapRe of Vermont, Inc.,* Case No.: 07-CV-04296, filed in the U.S. District Court for the Eastern District of Pennsylvania, about profitability, claims projections, and transfer of risk under mortgage reinsurance contracts.

III. Materials Considered

25. Over 25 years of research and experience, which I have testified about in Part I of this affidavit, and also set forth more thoroughly in my curriculum vitae, attached hereto as DX-2899, has provided me with extensive knowledge about structured financial products, including RMBS, the valuation of structured financial products, such as RMBS, and the macro and microeconomic issues that led to the downturn in the housing market that resulted in the financial crisis of 2008. I continue to research, attend and participate as a speaker at conferences, teach, and expand my knowledge in these areas.

26. Aside from my research and professional work, a number of other resources have informed my opinion. A list of these documents and publications is attached hereto as DX-2900. This list generally includes: (a) the amended complaint filed in this Action on June 28, 2012; (b) the depositions of Debashish Chatterjee (representative of Moody's Investors Service), taken in this Action on January 15, 2014, Donna Corley (a trader at Freddie Mac), taken in this Action on July 15, 2013, Gary Kain (an Executive Vice President in Freddie Mac's Mortgage Investments and Structuring Division), taken in this Action on November 7, 2013, Patti Cook (an Executive Vice President and Chief Business Officer at Freddie Mac), taken in this Action on December 5, 2013, and Peter Niculescu (an Executive Vice President at Fannie Mae responsible for the overall risk and return of Fannie Mae's private label securities portfolio), taken in this Action on December 10, 2013; (c) the expert reports of plaintiff's experts, G. William Schwert, Robert W. Hunter, Charles D. Cowan, and John A. Kilpatrick, and of a defendant's expert, Kerry D. Vandell; (d) publicly filed forms with the Securities and Exchange Commission, including filings by plaintiff, Freddie Mac, and Fannie Mae; reference materials related to RMBS and the 2008 financial crisis, including books, industry publications, articles published in academic journals, books, and websites; (e) data compiled from a number of publicly available sources, including the U.S. Census Bureau, the Federal Reserve Banks, and various public websites; and (f) documents filed by plaintiff and Nomura.

27. I also reviewed Section 12 and the blue sky laws.

IV. Summary of Testimony

29. My testimony is set forth in detail below. I provide a brief summary here:

30. First, I provide background information about structured financial products, including RMBS.

31. Second, I describe the certificates that are the subject of plaintiff's claims (the "At-Issue Certificates").

32. Third, I explain the impact of economic conditions, changes in housing markets and property values, mortgage loan interest rates, and unemployment on the performance of mortgages and RMBS.

33. Fourth, I calculate Section 12 and blue sky recovery, for the most part using the methodology employed by plaintiff's expert, James K. Finkel. It is my understanding that Section 12(a)(2) of the Securities Act of 1933 provides that the amount recoverable be measured as the consideration paid for such security with interest thereon, less the amount of any income received thereon, upon the tender of such security, or for damages if the purchaser no longer owns the security. I calculate blue sky recovery using Mr. Finkel's approach as well.[3]

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[3] ~~On February 16, 2014, the Court excluded me from testifying about Section 12 recovery using the methodology I used in my expert rebuttal report, dated November 7, 2014. (Feb. 16, 2015 Order, Doc. No. 1272.) My report was submitted to the Court as "Exhibit 3" to Defendants' Memorandum in Opposition to Plaintiff's Motion to Exclude the Opinion and Testimony of Timothy J. Riddiough, dated January 5, 2015 (the type date on the opposition is January 5, 2014, but that was an oversight). My methodology differed from Mr. Finkel's in a few respects. First, for the "consideration paid" component of Section 12, I used the "clean price" which is equal to the total amount that Freddie Mac and Fannie Mae paid for the certificates, *excluding* the payments for accrued interest, on two of the At-Issue Certificates, NHELI 2006-FM1 and NAA 2005-AR6, on the settlement date. Mr. Finkel, on the other hand, uses the "dirty price" for consideration paid, which means he includes as principal paid in his calculations the interest that had accrued and would be paid to Freddie Mac and Fannie Mae in the next coupon payment. Including the accrued interest in the "consideration paid" and then applying prejudgment interest ("PJI") to that amount over several years for the two Certificates increases recovery, when using Mr. Finkel's interest rates, by $99,910 when using a 3% PJI rate, $199,821 when using a 6% PJI rate and $217,591 when using the IRS penalty rate. I disagree with that approach. Second, Mr. Finkel applies PJI to principal repayments that Freddie Mac and Fannie Mae receive, but he does not apply prejudgment interest to the coupon payments~~

(*footnote continued*)

34. Fifth, I testify that, accepting Dr. Vandell's testimony and conclusions as correct, the logic of his analysis indicates there are zero losses caused by the alleged misstatements. Accordingly, plaintiff's recovery is equal to $0.

35. Sixth, I explain that plaintiff's expert, Dr. Schwert, employed a flawed methodology to reach his conclusion that "the GSE certificates could have been issued with AAA ratings, if at all, only if the subordination levels had been higher than the subordination levels at which the GSE certificates were in fact issued." (Schwert Report ¶ 8.) Further, I testify that even if Dr. Schwert's regression model of AAA subordination levels were correct, which it is not, there is insufficient statistical evidence to merit a reduction in credit rating for the At-Issue Certificates based on the purportedly "true" LTV ratios posited by plaintiff's expert, John A. Kilpatrick, and the purportedly "true" owner occupancy rates posited by plaintiff's expert, Robert W. Hunter, for the supporting loan groups of the At-Issue Certificates.

(*footnote continued*)
~~they receive. In doing so, Mr. Finkel is treating two cash flows to Freddie Mac and Fannie Mae differently. In my opinion, as a matter of economics, this inconsistent application of PJI across cash flows did not make sense because it did not credit the defendant for the cash that Freddie Mac and Fannie Mae received and were able to invest or otherwise use as they desired over the last several years. I understand that the Court has interpreted the statutes at issue as Mr. Finkel does. Third, Mr. Finkel calculates Section 12 recovery based on what I believe are inappropriate rates for PJI, including a 3% rate and the IRS penalty rate – and as of March 26, 2015, a 6% rate. I discuss what I believe to be the appropriate rate of interest in the text later.~~

V. Securitizing Pools of Mortgage Loans Is a Complex Process with Many Participants

A. The Securitization Process

36. Securitization typically involves the pooling of financial assets, such as mortgage loans. Mortgage loans have, in fact, been among the most frequently securitized financial assets. Pools of mortgage loans underlying securitizations are often referred to as “collateral pools.” Collateral pools are sometimes subdivided, and referred to as “loan groups” or “supporting loan groups.” Residential mortgage-backed securities are structured financial products backed by these collateral pools of mortgage loans.

37. The pooling of mortgage loans to create mortgage-backed securities involves numerous participants and processes. DX-2901, attached hereto, shows the parties involved in the securitization process. First, mortgage loans are typically underwritten and originated with the assistance of agents such as brokers or financial institutions such as commercial banks. Next, the mortgage originators sell the loans, either singly or in bulk, to a sponsor (generally an affiliated arm or a third party investment bank) which transfers them to a depositor. The depositor then establishes and transfers the mortgage loans to a trust (which is often referred to as a “special purpose vehicle” or “SPV”), which ultimately issues the certificates to the depositor. (I discuss the At-Issue certificates in more detail below.) A securities underwriter (usually an investment bank) subsequently acquires the certificates and sells them to investors.

38. The certificates are sold to investors pursuant to offering documents, which include a prospectus and the prospectus supplement. These offering documents contain extensive information about the risks associated with the pools of loans and the applicable “credit enhancements,” which are designed to shield certain securities from potential losses on the underlying collateral pools.

39. The purchaser receives a “certificate,” which carries specific rights with respect to the receipt of principal and interest payments (the “cash flows”) made on the mortgage loans comprising the collateral pool. Some certificate holders are entitled to receive cash flows before others. For

example, the senior certificate holders are typically the first in line to receive principal. Therefore, if borrowers default on loans that comprise the collateral pool, such that not all the payments to all of the certificate holders can be made, the senior certificate holders are paid before the certificate holders for the junior tranches, who may be paid less—or not at all.

40. RMBS may be backed by a single loan group or multiple loan groups. In these instances, "senior" certificates generally have a supporting loan group from which the cash flows from the underlying mortgage loans flow directly to the senior class of certificate holders. In addition, under certain conditions, the senior certificates may also receive portions of the cash flows from loans in other loan groups.

41. DX-2902, attached hereto, shows what is referred to as the "senior-subordinate" structure of a trust, like those at issue here. On the right side of that exhibit, the arrows show that the senior tranches have the most credit enhancement and, correspondingly, the least amount of credit risk. Subordination is the most common form of credit enhancement associated with RMBS. Subordination consists of dividing the certificates into "junior" and "senior" tranches, where defined rules dictate the order in which certificate holders will receive the principal and interest payments flowing from the underlying mortgage loans. Credit rating agencies consider this structure when assigning certain ratings to the respective tranches within the securitization.

42. The subordinated portion of the securitization is commonly further subdivided into tranches with lower credit ratings than the senior portion, typically with some tranches assigned non-investment grade credit ratings. In certain securitizations, the lowest priority tranche is referred to as the "residual," which is typically non-rated and is designed to absorb the first losses arising from borrower defaults.

43. Another form of credit enhancement is referred to as "excess spread." Excess spread is generated when the weighted average interest rate paid by borrowers on their mortgage loans exceeds the weighted average interest rate paid to certificate holders (inclusive of covering other

additional periodic expenses such as servicing fees). The difference is set aside to cover certain specified mortgage losses or other deficiencies that may occur.

44. Overcollateralization (meaning that the total value of available collateral is greater than the total principal value of the issued certificates) is yet another commonly used form of credit enhancement. For example, if $100 million of certificates were secured by $107 million of collateral, the overcollateralization amount would be equal to $7 million. The "extra" $7 million in collateral would be available to absorb default losses before any losses were allocated to certificate holders.

45. Additionally, "cross-collateralization" (meaning, for instance, that principal and interest collected from one loan group can be used to pay principal or interest to the senior certificates in another group) is another type of internal credit enhancement. In trusts with multiple groups of certificates and corresponding pools of loans (*e.g.*, Group 1 certificate holders receive cash flows from the payments made on loans in Pool 1), cross-collateralization may be used to further support the certificates of the trust, typically the senior certificates. This can be done by allocating cash flows received from one pool of loans to a different group of senior certificates (*e.g.*, Group 1 certificate holders may, under certain predefined conditions, also receive cash flows from the payments made on loans in Pool 2).

B. The At-Issue Certificates

46. The At-Issue Certificates were issued in the period November 2005 to April 2007. Freddie Mac purchased six of the At-Issue Certificates for just over $1.98 billion, and also paid approximately $41,000 in interest that had accrued prior to the purchase date on one of the transactions, NHELI 2006-FM1 1A1 ("NHELI 2006-FM1"). Fannie Mae purchased the remaining At-Issue Certificate on November 30, 2005 for just under $66.0 million, and also paid approximately $316,000 for the interest that had accrued prior to the purchase date. A chart showing the purchaser, stated maturity dates, initial principal balance, amount paid and any accrued interest for all seven Certificates is attached hereto as DX-2903.

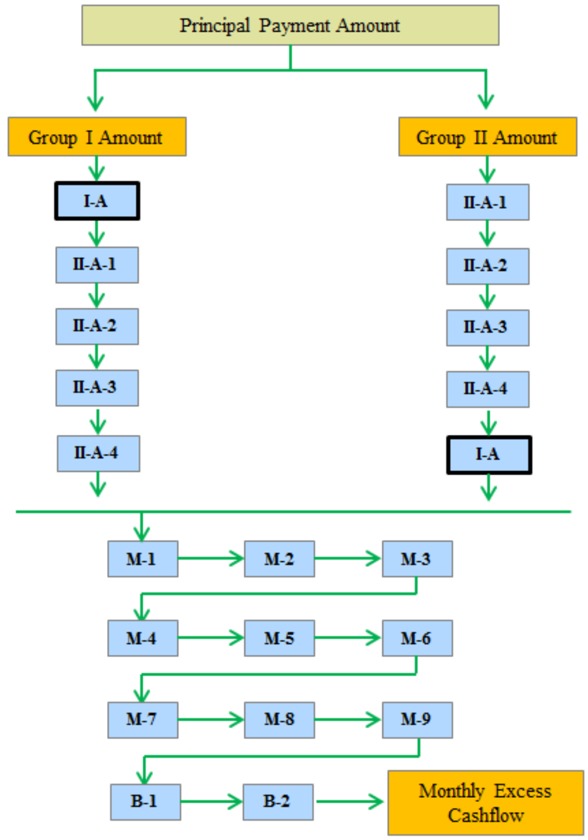
47. As shown in DX-2903 and DX 4111, when Freddie Mac and Fannie Mae purchased the seven At-Issue Certificates, the approximate initial certificate principal balance for the seven At-Issue Certificates was $2,045,929,000.

48. All of the At-Issue Certificates are "senior" securities and have a supporting loan group that makes payments to the trust, from which Freddie Mac and Fannie Mae directly receive cash flows. DX-2904, attached hereto, is a collection of the first page of each of the prospectus supplements for the At-Issue Certificates, which lists all of the "classes" of securities being offered. For NHELI 2006-FM1, Freddie Mac purchased from the top "class" or "tranche" listed, which was called "I-A." (DX-2.) Freddie Mac also purchased from the top class or tranche, which was called "I-A-1," for NHELI 2006-FM2, NHELI 2006-HE3, NHELI 2007-2, and NHELI 2007-3. (DX-3, DX-4, DX-6, DX-7.) For NHELI 2007-1, Freddie Mac bought from the top tranche in "Group 2" of the "Offered Certificates," which was called "II-1-A" (DX-5), and for NAA 2005-AR6, the top tranche supported by Group III loans, "III-A-1" (DX-1). DX-2905, attached hereto, shows the tranche and supporting loans group for each of the At-Issue Certificates.

49. Because Freddie Mac and Fannie Mae are holders of "senior" tranches, in addition to receiving payments from the loan groups that support their particular tranches, they might also receive payments from other loan groups within the collateral pool. For example, the At-Issue Certificate Class I-A in NHELI 2006-FM1 receives principal primarily from Group I. Under certain circumstances, however, Class I-A may receive principal from Group II.

50. As shown in the cash flow chart below, Group II principal will be allocated to the Class I-A certificate if the Class II-A-1, Class II-A-2, Class II-A-3, and Class II-A-4 certificates are paid off in full:

NHELI 2006-FM1
Principal Distribution



51. The supporting loan groups backing the At-Issue Certificates are comprised of "subprime" and "Alt-A" adjustable- and fixed-rate mortgage loans. A chart showing the types of loans in each of the supporting loan groups is attached hereto as DX-2905.

52. As I previously explained, each purchaser in these securitizations is obtaining the right to a stream of income derived from payments made by borrowers on their mortgage loans. Because Freddie Mac and Fannie Mae were owners of a "senior" tranche in each securitization, it is my understanding that all payments to them that were scheduled to be made have in fact been made, with the exception of one At-Issue Certificate.

53. More specifically, to date, with the exception of one At-Issue Certificate, all principal and interest payments have been made to Freddie Mac and Fannie Mae as scheduled, with over $1.4 billion in principal already having been repaid. With respect to the remaining At-Issue Certificate, as

shown in DX-4111 and DX-4129, as of March 25, 2015, Freddie Mac had realized a principal loss of $25,284,711. As this exhibit also shows, as of March 25, 2015, Freddie Mac had received $1,379,775,294 in principal payments and $157,631,230 in interest payments, while Fannie Mae had received $42,824,652 in principal payments and $17,579,254 in interest payments. The monthly principal and interest distributions for each of the At-Issue Certificates are shown in pages 2-8 of DX-4111. Additionally, DX-4111 shows the face value (or unpaid principal balance) of the At-Issue Certificates, which was $598,044,343 as of March 25, 2015—in other words, 70% of the principal balance of the certificates had been returned to Freddie and Fannie as of that date. Additionally, the market value of the certificates as of March 26, 2015 using IDC prices was $479,921,092 and using Bloomberg prices was $434,440,466.[4] (DX-4111.)

54. ~~It bears noting that at the time of issuance, for each securitization, Nomura retained the lowest tranche, also called the "residual," which, as I explained above, was designed to be the first to sustain losses if the underlying loans failed to perform (*e.g.*, defaulted). Unlike the "senior" tranches that Freddie Mac and Fannie Mae purchased, the residual piece is not listed on the front page of the prospectus supplement. It is my understanding that Nomura at some point in late 2007 sold the residual pieces of the At-Issue Certificates at a significant loss.~~

[4] IDC collects, edits and maintains pricing-related data on 450 markets and exchanges around the globe, including end-of-day pricing data on mortgage-backed securities. As plaintiff's expert, Mr. Finkel, stated in his expert report, "IDC utilizes deal files from 'an industry leader for securitized fixed income data and analytics' to generate its cash flows." (Finkel Report ¶ 101.) Bloomberg is a major global provider of both historical and real-time financial information. Through its integrated Bloomberg Terminal platform, it provides access to current and historical price and trading data, company financials data, trading news and analyst coverage.

VI. The Economy-Wide and Market-Specific Factors Affecting the Performance of the At-Issue Certificates

55. Macroeconomic conditions, including changes in housing markets and property values, mortgage loan interest rates, and unemployment, can significantly impact the timing and amounts of principal and interest payment to RMBS certificate holders. The risk of changes in macroeconomic conditions on RMBS investment performance is disclosed as a risk factor in all seven prospectus supplements for the At-Issue Certificates, and the relevant portions of the prospectus supplements have been reproduced in DX-2907.

56. Starting around 2000, there was a sustained and significant increase in housing prices in the United States. As Fannie Mae noted in its SEC Form 10-K for the fiscal year 2004, filed on December 6, 2006, "home price appreciation was especially rapid in 2004 and 2005, with rates of home price appreciation of approximately 11% in 2004 and 13% in 2005 on a national basis." (DX-42 at 5.) The Office of Federal Housing Enterprise Oversight ("OFHEO"), the predecessor agency to the plaintiff, attributed the increase in prices for homes to the strengthened demand for homes caused by "[t]he generally healthy economy and continued low interest rates." (DX-2577 at 1-2.)

57. U.S. home prices peaked around mid-2006. From January 2000 to May 2006, average home prices at the national level rose by 125 percent while housing starts surged by approximately 24 percent. DX-2908, attached hereto, shows the significant increases in both of these metrics.

58. Beginning in the second half of 2006, after the housing market had peaked nationally, however, loan delinquencies and home foreclosures started to rise as cases of negative equity (meaning that the value of the property is lower than the balance owed on the mortgage) and job losses began to increase. The rise of delinquencies and home foreclosures in the second half of 2006 is shown in the graph in DX-2909, attached hereto. Home prices declined substantially in 2007 and 2008. *See* DX-2911, attached hereto. Freddie Mac's Annual Report for the fiscal year 2007 and Fannie Mae's SEC Form 10-K filing for the fiscal year 2007 attributed the "substantial increase in

[its] credit related expenses" specifically to "national home price declines and economic weakness in some regional markets." (DX-49 at 49; *see also* DX-50 at 5.)

59. The performance of the At-Issue Certificates, and all RMBS, was directly affected by the significantly declining house values and deteriorating economy. *See* DX-2912. Starting in 2007, the sustained increase in mortgage loan delinquencies contributed to credit rating downgrades and price declines. An illustration of the collapse in prices in the U.S. RMBS market is found in DX-2910, using the ABX index. The ABX Index is a proxy for the overall value of mortgages made to borrowers with weak credit. The index references 20 mortgage backed securities collateralized by groups of subprime mortgages that are intended to be representative of similarly rated RMBS of similar vintage.

60. DX-2911, which compares the prices of the At-Issue Certificates through October 2014 to the Case-Shiller 10-city composite home price index during that period, shows that as housing prices declined, the value of the At-Issue Certificates declined as well.[5] As seen in this exhibit, the values of the securities move in close lockstep with house prices over time, showing the predominant influence of house prices on private label RMBS values.

61. Fannie Mae's Form 10-Q for the period ending June 30, 2008 stated that "[t]he substantial increase in our credit losses reflected the impact of a further deterioration of conditions in the housing and credit markets" (DX-53 at 35) and Freddie Mac's 10-K for the fiscal year 2008 stated that "macroeconomic conditions deteriorated during 2008, which affected the performance of all types of mortgage loans." (DX-57 at 141.) FHFA's own Report to Congress, for the fiscal year 2008, states that:

> Conditions in housing and mortgage markets deteriorated sharply throughout 2008, especially in the fourth quarter. House prices continued to fall, with

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[5] As the notes in DX-2911 explain, for NHELI 2007-1, prices are only available from IDC or Bloomberg starting in February 2010.

> many areas experiencing record rates of decline. Significant inventories of unsold homes, increasing foreclosures, and tightening credit conditions put downward pressure on prices, even in areas that suffered substantial price declines in 2007.

(DX-2580 at 9.)

62. As a result of the declines in housing prices and general deterioration in the credit markets, the performance of private label securities has fluctuated. DX-2912, attached hereto, shows how the performance of the At-Issue Certificates fluctuated with housing prices.[6] DX-2909, also attached hereto, shows how unemployment rates, the delinquency rate, and the foreclosure rate generally rose and fell in accordance with rising and falling home prices. Since 2011, house prices have stabilized or increased, and so have the intrinsic values of the At-Issue Certificates.

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6 As stated in the notes on DX-2912, the "performance" for each At-Issue Certificate is calculated as: [(cumulative payments of principal as of the beginning of the month, plus the balance as of the beginning of the month times the price at the beginning of the month), divided by original class balance] multiplied by 100. As previously noted, prices for NHELI 2007-1 are only available starting in February 2010.

VII. Recovery under Section 12(a)(2) of the Securities Act of 1933 or the Blue Sky Laws.[7]

A. The most justifiable rate to use for prejudgment interest for Section 12 recovery is the risk-free rate.

63. Section 12(a)(2) of the Securities Act of 1933 provides that the amount recoverable be measured as: the consideration paid for such security with interest thereon, less the amount of any income received thereon, upon the tender of such security, or for damages if [the purchaser] no longer owns the security, Securities Act of 1933, 15 U.S.C. § 77l(a)(2), less any portion or all of that amount recoverable proven to represent other than the depreciation in value caused by the misstatements or omissions alleged, Securities Act of 1933, 15 U.S.C. § 77l(b).

64. Plaintiff has represented that it still owns all seven At-Issue Certificates, so my considerations are premised on the assumption that Freddie Mac and Fannie Mae will continue to hold them, and ultimately return them to Nomura if they prove their Section 12 claims at trial. Accordingly, I understand that the only remedy available to plaintiff is the rescissionary remedy provided by Section 12 and the blue sky laws. Additionally, I understand the rescissionary remedy is intended to place the parties in their respective positions before the transaction at issue occurred.

65. Freddie Mac and Fannie Mae have received all payments owed to them on all but one of the At-Issue Certificates. As shown in DX-4111, attached hereto, this amounts to a total of $1,379,775,294 in principal payments and $157,631,230 in interest payments received by Freddie Mac and $42,824,652 in principal payments and $17,579,254 in interest payments received by Fannie Mae over the last 8 to 10 years.

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[7] I understand that plaintiff brought blue sky claims against Nomura for one of the At-Issue Certificates, NAA 2005-AR6, and against RBS for three of the At-Issue Certificates, NHELI 2006 FM2, NHELI 2007-1, NHELI 2007-2.

66. To the extent there are any losses on any of the seven At-Issue Certificates, those losses will transfer to Nomura if Freddie Mac and Fannie Mae prevail on their claims and return the At-Issue Certificates to Nomura.

1. Applying the risk-free rate is the most appropriate rate to apply to effectuate Section 12's rescissionary remedy.

67. With rescission, when applying interest to past cash flows to translate them into current dollars, a risk-free rate is the most appropriate rate to use.[8] Here, assuming that plaintiff successfully proves its claims, Nomura will be required, pursuant to court order, to purchase the At-Issue Certificates from Freddie Mac and Fannie Mae for an amount equal to the consideration paid less all principal payments at the time of the judgment, with monthly prejudgment interest accumulated since purchase, minus the sum of the coupon payments received on the At-Issue Certificates through the judgment date. With rescission, the relevant historical cash flows are not, however, subject to any of the usual risks attendant to investing money. Rescission replaces plaintiff's original investment in the seven RMBS certificates that are in reality subject to the risks I discussed in Section VI, above, with a risk-free investment. That is, there is no risk that the amount returned to Freddie Mac and Fannie Mae by court order at the current time, in relation and in reference to the initial principal investment amount that occurred in the past, will be subject to the usual credit or liquidity risks that were realized in the interim period of time between initial investment date and the court order date. As such, the appropriate pre-judgment interest rate is the risk-free rate.

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[8] *See* Fisher, Franklin M., and R. Craig Romaine, "Janis Joplin's Yearbook and the Theory of Damages," *Journal of Accounting, Auditing & Finance*, Vol. 5, No. 1/2 (1990): 145-157.

68. Indeed, the usual way to account for the time value of money when there is no uncertainty in the cash flows is to discount using the risk-free rate. The following explanation from the Journal of Accounting, Auditing & Financing sums up the relevant issues:

> At first glance, it may seem that the plaintiff is entitled to interest at its opportunity cost of capital, r. After all, had the plaintiff received Y at time 0, it would have invested the funds, receiving presumably its average rate of return. . . . Another version of this argument would compensate the plaintiff at the rate it reasonably expected to earn on the destroyed asset.
>
> The fallacy here (in either version) has to do with risk. The plaintiff's opportunity cost of capital includes a return that compensates the plaintiff for the average risk it bears. But, in depriving the plaintiff of an asset worth Y at time 0, the defendant also relieved it of the risks associated with investment in that asset. The plaintiff is thus entitled to interest compensating it for the time value of money, but it is not also entitled to compensation for the risks it did not bear.[9]

69. As the above-quoted excerpt states, from an economic perspective, plaintiff should be entitled to collect interest in an amount compensating it for the time value of money—the risk-free rate. Providing plaintiff with prejudgment interest in a higher amount would, in effect, compensate plaintiff for investment risks that it does not bear.

70. Applying the risk-free rate, the total prejudgment interest on all the At-Issue Certificates would equal $113,629,244, as shown in DX-4112.

2. Applying the coupon rate is the only other, but less economically justifiable, rate to apply to effectuate Section 12's rescissionary remedy.

71. The coupon rate is the only other rate that, in my opinion, could make sense to apply to achieve this rescissionary remedy. Although the risk-free rate most appropriately achieves "status quo" before the At-Issue Certificates were purchased, if the court deems it appropriate to account for Freddie Mac and Fannie Mae's original expectations when investing in the At-Issue Certificates, then the coupon rate can be justified as an appropriate rate of interest. The coupon rate of return is in fact the maximum potential benefit that Freddie Mac or Fannie Mae could receive on their investments in

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[9] Janis Joplin's Yearbook and the Theory of Damages," *Journal of Accounting, Auditing & Finance*, at 146.

the At-Issue Certificates if the Certificates performed perfectly—if there were no missed payments and there was a full return of principal.

72. Applying the coupon rate, the total prejudgment interest would equal $175,210,484, as shown in DX-4112.

B. Mr. Finkel's application of three percent~~, six percent,~~ or the IRS penalty rate is arbitrary and economically unjustifiable.

73. Mr. Finkel applies three ~~four~~ alternative interest rates: the coupon rate of the At-Issue Certificates, three percent, ~~six percent,~~ and the federal IRS penalty rate. I understand that when he was asked at his deposition how he decided to apply the 3% and IRS penalty rates, Mr. Finkel testified that counsel instructed him to do so; he did not apparently consider whether any of these rates were economically sound.~~[10]~~ (Deposition of James K. Finkel, dated Nov. 25, 2014, at 207:18-210:21.) Based on Mr. Finkel's representation and in my opinion, the 3 percent rate and IRS penalty rate are arbitrary and without economic justification. ~~It is also my opinion that the 6 percent rate is arbitrary and without economic justification.~~

74. I understand that the Court has ruled that Nomura does not receive credit in the form of interest on the coupon payments made to Freddie Mac and Fannie Mae over the last several years. The non-payment of pre-judgment interest on coupon payments thus, in the context of the rescissory remedy, imposes an economic penalty on Nomura in an amount ranging from $5,779,346 (using the risk-free rate) to $71,323,192 (using the IRS penalty rate) ~~or $73,734,063 (using the 6% rate)~~ as of March 31, 2015.[11] (DX-4113.) Applying a rate of 3% or ~~,~~ the IRS penalty rate~~, or a rate of 6%~~

~~[10] Mr. Finkel applied the 6% rate to all of the At-Issue Certificates for the first time in his March 26, 2015 testimony.~~

[11] DX-4113 also shows that the economic penalty on Nomura as of September 2, 2011 would be between $5,520,173 (risk-free rate) and $40,972,883 (IRS penalty rate) and between September 2, 2011 and March 31, 2015 would be between $259,173 (risk-free rate) and $30,350,309 (IRS penalty rate)~~ and $36,420,371 (6% rate)~~.

~~across all of the At-Issue Certificates (as opposed to just those to which the blue sky laws apply)~~ would impose a second penalty on Nomura, in an amount equal to hundreds of millions of dollars. The recovery amount based on a risk-free rate of prejudgment interest, on the other hand, would restore plaintiff to the "status quo" before the At-Issue Certificates were purchased.

75. I calculated Section 12 recovery using Mr. Finkel's method (*i.e.*, using the "dirty price" and applying prejudgment interest inconsistently across cash flows, as discussed in footnote 3). As summarized in DX-4114, the total Section 12 recovery, before accounting for loss causation, using the risk-free rate is $562,825,709 and total recovery using the coupon rate is equal to $624,406,948. [12]

76. Additionally, some of the At-Issue Certificates also are subject to potential blue sky recovery; plaintiff as I understand it cannot obtain recovery on the same certificate from both Section 12 and the blue sky laws, assuming it prevails on all of its claims.

C. The blue sky laws dictate a rate of six percent be applied as prejudgment interest.

77. It is my understanding that both the D.C. blue sky law and the Virginia blue sky law mandate a prejudgment interest rate of six percent. Accordingly, I have used six percent as the prejudgment interest rate for NAA 2005-AR6, to which the D.C. blue sky law applies, and to NHELI 2006-FM2, NHELI 2007-1, and NHELI 2007-2, to which the Virginia blue sky law applies.

78. I calculated blue sky recovery using Mr. Finkel's method (*i.e.*, using the "dirty price" and applying prejudgment interest inconsistently across cash flows, as discussed in footnote 3). As summarized in DX-4114, which assumes the return of the At-Issue Certificates, as of March 31, 2015, the D.C. blue sky recovery for NAA 2005-AR6 would be $26,544,871 and the Virginia blue

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12 Applying Mr. Finkel's other rates results in recoveries as high as $1,001,704,235 (IRS penalty rate) ~~, $938,073,591 (6% rate),~~ or $693,635,028 (3% rate). (DX-4115.)

sky recovery for NHELI 2006-FM2, NHELI 2007-1, and NHELI 2007-2, would be, in total, $526,397,377.

VIII. Loss Causation Deduction

A. Based on Dr. Vandell's opinions, no amount of recovery is attributable to the alleged misrepresentations for the seven At-Issue Certificates.

79. In my testimony, if permitted, I would have relied on the analysis set forth in my report in this Action, dated November 7, 2014. Because the Court's February 10, 2015 order (Doc. No. 1248) has excluded that testimony, I have reviewed Dr. Vandell's remaining analysis. This analysis and Dr. Vandell's testimony show that there is no statistical difference in the credit performance of allegedly defective and non-defective loans underlying the At-Issue Certificates, indicating that the alleged misrepresentations did not affect the credit performance of the mortgage loans in the securities at issue. Accepting Dr. Vandell's opinion as true, after accounting for loss causation, plaintiff's recovery is equal to $0.

IX. Analysis of the Methodology and Conclusions Reached by Plaintiff's Expert, Dr. G. William Schwert

A. Dr. Schwert's analysis does not provide meaningful conclusions about the AAA ratings of the At-Issue Certificates.

80. Dr. Schwert constructs a sample of publicly-offered RMBS that were issued between 2005 and 2007 and from which Freddie Mac and Fannie Mae purchased senior certificates. For each sample, he uses regression analysis to estimate the relationship between what he calls "AAA subordination levels"—the percentage of certificates rated below -AAA—and aggregate loan characteristics (of the RMBS or the pool).

81. Dr. Schwert claims to show "a significant relation between AAA subordination levels and reported characteristics of the underlying collateral, including LTV ratios and occupancy status" (Schwert Report ¶ 8) in securitizations purchased by Freddie Mac and Fannie Mae (which he calls the "GSE certificates"). Then, based on his findings, he concludes that "the GSE certificates could have been issued with AAA ratings, if at all, only if the subordination levels had been higher than the subordination levels at which the GSE certificates were in fact issued." (Schwert Report ¶ 8.)

1. Dr. Schwert's regression model does not show that a change in subordination levels would change the certificate rating.

82. Dr. Schwert's regression analysis fails to support his assertion that, assuming plaintiff's claims are correct, the At-Issue Certificates would have received AAA ratings only if the subordination levels had been higher than the subordination levels at which the certificates were in fact issued. An analysis showing a relationship between LTV ratios/occupancy and subordination levels is not sufficient to conclude that LTV ratios or occupancy of the underlying collateral in and of themselves determine the specific credit rating of a certificate.

83. Dr. Schwert's analysis does not identify any AAA/AA threshold or margin, nor does his analysis show that any of the At-Issue Certificates were issued near a threshold or margin between one credit rating and the next. Instead, Dr. Schwert merely assumes that any reduction in the subordination level, however trivial, would have changed the At-Issue Certificates' credit ratings, implicitly claiming that the subordination levels of the At-Issue Certificates were precisely at the margin of the AAA/AA rating. Dr. Schwert establishes no basis for this assumption. There is substantial evidence that the relevant credit ratings were not set right at the AAA/AA subordination margin, but rather were set higher than the margin. Dr. Schwert makes no effort to address this evidence or support his implicit claim that credit ratings were set right at the AAA/AA subordination margin.

2. Dr. Schwert does not account for the fact that ratings agencies depend on independent judgment and that credit enhancements besides subordination and overcollateralization impact ratings as well.

84. The rating of structured finance transactions similar to the At-Issue Certificates is a complex process that relies on independent qualitative judgment, not just quantitative models, which Dr. Schwert fails to consider.

85. The evidence in this Action shows that the ratings agencies consider several sources of information besides results from a quantitative model when determining the credit ratings associated

with a particular offering. For example, Debashish Chatterjee, of Moody's Investors Service ("Moody's"), which provided credit ratings for all seven of the At-Issue Certificates, testified that the credit rating and the credit enhancement level was dependent upon the parties involved in the transaction: "[Moody's Analysts] would look at who the originator was; and if the Analyst or the committee felt that there were any … adjustments that needed to be made … to the enhancement levels, then the committee would do so." (Chatterjee Tr. at 68.) In fact, Moody's did not determine the "AAA loss number" (or the projected loss level at which the AAA tranche would be affected) based exclusively on a loan-by-loan quantitative model; rather, Moody's also relied on a method called comparative benchmarking, as Mr. Chatterjee's testimony confirms. (Chatterjee Tr. at 74.)

86. Additionally, Dr. Schwert's analysis focuses entirely on subordination and overcollateralization, even though each of the seven At-Issue Certificates benefits from other types of credit enhancements. There is no reason to believe that these other types of credit enhancements would have no impact on whether a certificate would receive a AAA rating. Dr. Schwert does not consider the effects that other credit enhancements offer, or consider how credit rating agencies would incorporate such enhancements in their credit rating process.

87. Even in the development of his regression model, Dr. Schwert does not consider other factors that have been identified as important factors for determining subordination. For example, the study on which he bases his measure of subordination identifies other types of credit enhancement that are not captured in his regression model such as excess spread and other measures. The same study also includes as an explanatory variable a measure of the geographic concentration of the loans in a collateral pool, to capture the possibility that a deal will have greater subordination if it is exposed to state-specific shocks. (*See* Schwert Report, Exhibit B, Ashcraft, *et al*. "MBS Ratings and the Mortgage Credit Boom," European Banking Center Discussion Paper No. 2010-24S (May 2010), pp. 6-7, 21, and Table 5.) Dr. Schwert's model of subordination accounts for none of these factors.

B. Dr. Schwert's findings show that LTV and occupancy status have little to no impact on subordination levels.

88. Using regression analysis, Dr. Schwert models the relationship between subordination level and certain credit factors, which include LTV ratio and occupancy status. Using this regression method, Dr. Schwert finds a statistically significant relationship between occupancy status and subordination levels in his pool-level regression but not in his deal level regression. More importantly, the economic impact of this variable on subordination is, at best, marginal. In fact, Dr. Schwert admits how small the impact of occupancy status is on subordination levels:

> [t]he coefficient of 0.014 in the pool-level regression indicates that a 10 percent increase in the not owner-occupied percentage of the primary supporting loan group (from, say 30 percent to 40 percent) would be associated with a 0.14 percent increase in the AAA subordination level (from, say, 20 percent to 20.14 percent), on average. The coefficient of 0.016 in the deal-level regression indicates that a 10 percent increase in the not owner-occupied percentage of the supporting loan groups (from, say 30 percent to 40 percent) would be associated with a 0.16 percent increase in the AAA subordination level (from, say, 20 percent to 20.16 percent), all else equal.

(Schwert Report ¶ 24.)

89. In other words, using Dr. Schwert's pool-level example, a 10 percentage point increase in the percentage of non-owner occupied properties would increase AAA subordination by a very small relative amount. So, while his pool-level results show a statistically significant relationship between subordination levels and owner occupancy, the economic magnitude of the impact is marginal at best.

90. To determine more broadly the economic importance of LTV and occupancy status on AAA subordination levels relative to the numerous other explanatory variables in Dr. Schwert's regression model, I rank order the relative impact of each explanatory variable. When I do this, I find that neither LTV nor occupancy status is the most important explanatory variable. In particular, out of 20 explanatory variables in Dr. Schwert's deal-level linear model, I find that LTV has the fourth highest economic impact on subordination levels, while occupancy status ranks 17th out of his 20

explanatory variables. Similarly, in his pool-level linear model, I find that LTV and occupancy rank are seventh and 15th, respectively. The findings on occupancy status are consistent with the *de minimis* impact as described above by Dr. Schwert.

91. In light of these findings, I further investigate whether LTV and occupancy status, collectively, have any meaningful impact on AAA subordination levels. To analyze this, I use Dr. Schwert's regression model to compare the actual AAA subordination levels of the At-Issue Certificates and pools and the AAA subordination levels predicted by his model conditional on the purported true measures of LTV and occupancy status as found by plaintiff's experts, Mr. Hunter and Dr. Kilpatrick, and as extrapolated by plaintiff's expert, Dr. Cowan.

92. To do this comparison, I construct a 95 percent confidence interval for the AAA subordination level predicted by Dr. Schwert's model using the purported true characteristics of each At-Issue deal and pool (for both the linear and non-linear models) and examine whether the actual AAA subordination level falls within the confidence interval.

93. In particular, in order to calculate the predicted AAA subordination levels according to Dr. Schwert's model (assuming the values found by plaintiff's experts for the characteristics of the underlying loan collateral), I utilize the extrapolation of Mr. Hunter's and Dr. Kilpatrick's findings performed by plaintiff's expert Dr. Cowan. The details of my analysis are described in DX-2916, attached hereto.

94. If the actual AAA subordination level falls within the 95 percent confidence interval of the AAA subordination as predicted by Dr. Schwert's pool-level or deal-level regression models, then I conclude that there is insufficient statistical evidence to justify different subordination levels, much less a reduction in credit rating, given the purported true measures of LTV and occupancy status. DX-1072-R shows precisely that for each of the seven At-Issue SLGs—the actual subordination level falls within the 95 percent confidence interval as predicted by Dr. Schwert's pool-level model. Similarly, DX-2917-R, attached hereto, shows that for each of the seven At-Issue

Securitizations, the actual subordination level falls within the 95 percent confidence interval as predicted by Dr. Schwert's deal-level model.

X. Conclusion

A. Prejudgment interest at the risk-free rate, or in no event higher than the coupon rate, should be applied to Section 12 recovery, if any is awarded.

95. As previously stated, and summarized in DX-4114, the total Section 12 recovery, before accounting for loss causation, using the risk-free rate is $562,825,709, and total recovery using the coupon rate is equal to $ 624,406,948.

B. Blue Sky recovery must be awarded according to a statutory interest rate of six percent.

96. As previously stated, and summarized in DX-4114, D.C. blue sky recovery for NAA 2005-AR6 would be $26,544,871 and Virginia blue sky recovery for NHELI 2006-FM2, NHELI 2007-1, and NHELI 2007-2 would be $526,397,377.

C. After accounting for loss causation, no recovery is due to FHFA.

97. As previously stated, accepting Dr. Vandell's conclusions as correct, and applying the logical implications of his findings, there are zero losses caused by the alleged misstatements or omissions. Accordingly, plaintiff's recovery is equal to $0.

D. The impact of LTV and occupancy status on AAA subordination levels is not significant.

98. Dr. Schwert's methods, analyses, and arguments are speculative and do not support a conclusion that the securities would not have received AAA ratings if the collateral characteristics plaintiff claims are "true" had been reported to the ratings agencies. Even if one were to accept Dr. Schwert's regression models as properly specified and his results as correct, then, according to his models, there is no statistical basis to claim that the deals and pools would have had different subordination levels (much less that the certificates would have had different credit ratings) if the purported true loan characteristics had been reported.

Timothy J. Riddiough, Ph.D.

SWORN AND SUBSCRIBED before me
this 29 day of March 2015

Brent Yarnell
Notary Public

BRENT E. YARNELL
NOTARY PUBLIC, State of New York
No. 01YA6286715
Qualified in New York County
Certificate filed in New York County
Commission Expires July 29, 2017